

PROOEMIUM

The aim of this treatise is to comment upon the book of Aristotle entitled the *Physics* since no complete commentary, word for word, by any of the commentators on this book has reached us.¹ As for what has reached us of the commentary of Alexander [of Aphrodisias] on this book, part of the first [treatise], the second, the fourth, the fifth, the sixth, the seventh, and part of the eighth are not the words of Alexander.² Before [we begin] we should mention, following the custom of the commentators, some of the matters with which they begin [their commentaries on] his

¹ Averroes similarly begins his *Long Commentary on the Posterior Analytics* by explaining that his aim in that book is to comment upon the *Posterior Analytics* since "no long commentary of it from any of those who interpreted it has come down to us." See Charles E. Butterworth, *Averroes' Middle Commentaries on Aristotle's Categories and De Interpretatione* (Princeton: Princeton University Press, 1983), pp. 4–5.

² Averroes' meaning is not clear. He seems to be saying that most of the commentary which has come down in the name of Alexander is spurious. Yet he himself in the second treatise (and in following treatises as well) refers to Alexander's version of the *Physics* (see above, n. 16) and also cites Alexander's interpretation (see, e.g., *Long Commentary*, f. 83b). According to the medieval Arabic bibliographers, there was indeed a commentary (*tafsir*) by Alexander. Ibn Abi Uṣaibi'a reported that the commentary was extant in full (see '*Uyūn al-anbā' fi ṭabaqāt al-aṭibbā'*' [Cairo, 1882], I, pp. 69–70). Ibn al-Nadīm and al-Qifṭī after him reported that part of the first treatise, the second, part of the fourth, the fifth, part of the sixth, the seventh, and a very small part of the eighth were extant (see *Fihrist* [Leipzig, 1871], p. 250, and *Ta'rikh al-ḥukamā'* [Leipzig, 1903], p. 38). Ibn Bajjah cites Alexander's commentary in the fourth and sixth treatises of his own commentary. In addition, several statements from Alexander's commentary are preserved in the unique MS of Ishāq's translation of the *Physics*. These occur in Treatises II, IV, V, and VII. For page references, see the printed edition, vol. II, p. 957. See further, Peters, *Aristoteles Arabus*, p. 34. Alexander's commentary is not extant today in any language, although it is often cited by Simplicius in his commentary.

[Aristotle's] books.³ These [matters] are in general eight [in number]: [1] the aim of the book, [2] its utility, [3] its rank, [4] its division, [5] its relation, [6] the method of instruction used in it, [7] what its name indicates about it, and [8] who wrote it.⁴ [We

³ Or according to some readings (see apparatus): "... some of the things with which they begin their books." The meaning is, however, the same.

⁴ This is curiously Averroes' only account of these eight matters, although he does begin some of his commentaries by mentioning a number of them. See, for example, his Prooemium to his *Long Commentary on the Posterior Analytics* (in Juntas edition, Vol. I, 2a, ff. 1a-9b), his *Epitome of the Metaphysics* (in *Die Epitome der Metaphysik des Averroes*, German trans. by S. Van Den Bergh [Leiden, 1924], pp. 1-7), his *Middle Commentary on the Topics* (ed. by Charles E. Butterworth [Cairo: The American Research Center in Egypt, 1979], pp. 29-34), and his *Long Commentary on the De Anima* (Latin trans., ed. by F. Stuart Crawford [Cambridge, Mass.: The Mediaeval Academy of America, 1953], pp. 3-6). Alfarabi enumerates and explains these eight matters in his *Kitāb al-alfāz al-musta'malah fī al-manṭiq*, sec. 51, pp. 94-95. He also refers to the custom ('ādah) of the commentators of mentioning these matters at the beginning of their books (see *ibid.*, sec. 51, p. 94, and sec. 58, p. 104). He himself discusses these matters, perhaps as a preface to his commentary on the *Categories*, at the end of *Kitāb al-alfāz*, secs. 58-65, pp. 104-111. Alfarabi also begins a number of his Aristotelian commentaries with an account of most of these eight matters. See, e.g., Alfarabi's *Commentary on Aristotle's De Interpretatione*, ed. by Wilhelm Kutsch and Stanley Morrow (Beirut: Imprimerie Catholique, 1960), pp. 17-23, and his Introduction to his *Commentary on the Nicomachean Ethics*, Hebrew trans. ed. and trans. by Lawrence V. Berman, "Ibn Rushd's *Middle Commentary on the Nicomachean Ethics* in Medieval Hebrew Literature," in *Multiple Averroës* (Paris: Les Belles Lettres, 1978), pp. 303-311. See also the references in *ibid.*, p. 299, notes 3-4. In addition, Alfarabi wrote a small treatise, *Risālah fī mā yanbaghi an yuqaddam qabl ta'allum al-falsafah* [Treatise on what one ought to know before studying philosophy] (ed. and German trans. by Fr. Dieterici in his *Alfārābī's philosophische Abhandlungen* [Leiden, 1890 (text) and 1892 (translation)]), devoted to the nine matters that one must know before studying Aristotelian philosophy. Professor Muhsin Mahdi informed me that Abū al-Faraj 'Abdullah Ibn al-Ṭayyib (d. 1043) also refers to the custom of the commentators ('ādat al-mufasssirin) of mentioning these matters at the beginning of their commentaries. Ibn al-Ṭayyib writes in his *Commentary on the Categories*, Cairo, Dār al-kutub al-miṣriyah MS No. 1962, f. 1a: "It was the custom of the commentators before inquiry into the book of Aristotle

will mention them] even though most of these matters are included implicitly in the beginning of his book, as we will explain when we get there, God willing.

We say that the aim of natural science [physics] in general, of which the aim of this book is a part, is to know the causes of the sensible species and the causes of the accidents that exist in them. 1b
The subject, then, of this art into which we are inquiring is things that are recognizable to the senses and that change by themselves, i.e. that have within themselves the principle of motion and rest.⁵

[1] The aim of this book is to give knowledge of the causes that are common to all natural things, i.e. the material, formal, final, and agent [causes], and to give knowledge of the first causes, i.e. those [causes] that it is possible to make known through this science, like prime matter and the Prime Mover. As for first form and the first end, it is the student of divine science [metaphysics] who inquires into them.⁶ Speculation [here] is also into the concomitants that are common to all natural things, such as time, place, and the like.

[2] The utility [of this book] is part of the utility of theoretical science. It has already been explained in the voluntary science, i.e. [the science] that inquires into voluntary actions, that the existence of man in his ultimate perfection and in his perfect essence is his

known as the *Categories* to inquire into ten principles [*mabādi'*].” Now none of the extant commentaries on the *Physics* in *Commentaria in Aristotelem Graeca* follow this practice. Ammonius, the son of Hermias, however, discusses ten such matters in his Preface to his *Commentary on the Categories*. See now *Les Attributions. Le texte aristotélicien et les prolegomenes d'Ammonios d'Hermeias*, French trans. by Y. Pelletier (Paris: Les Belles Lettres, 1983). Other early commentators who begin their commentaries on Aristotle's logical writings in a similar fashion include Alexander of Aphrodisias, Proclus, Simplicius, Olympiodorus, John Philoponus, and Elias. See Edwin A. Quain, “The Medieval *Accessus ad auctores*,” *Traditio*, III (1945), pp. 215–264, esp. pp. 247–252.

⁵ In his *Middle Commentary on the Physics* (in Juntas edition, Vol. IV, f. 434a) Averroes describes the subject of natural science simply as “beings that move.” Cf. Aristotle, *Metaphysics* VI 1025b 18–21, IX 1059b 17, 1061b 5–6 and 29–30, and 1064a 15–16.

being perfect in [the knowledge of] the theoretical sciences. His having achieved this state is the ultimate happiness and [the cause of] eternal life. One sees from this science that the term "man" that is predicated [both] of the one who is perfect in the theoretical sciences and of the one who is not perfect in them or who is such that he will not become perfect in them, is predicated equivocally, just as the term "man" that is predicated of [both] the living man and the dead man, and similarly also the term "man" that is predicated of the rational [being] and of the [being] carved from stone.⁷

Now in addition to what follows from a knowledge of the theoretical sciences, there is [the acquisition] of important qualities, for when the students of these sciences attain to what is natural for them, it will follow necessarily that they will be distinguished in all

⁶ Averroes explains in the *Middle Commentary on the Physics*, f. 434a, that there do not exist premises in natural science from which we can arrive at knowledge of the first form and the first end. See also his *Epitome of the Physics* in *Rasā'il ibn Rushd* (Hyderabad, 1947), p. 7, and *Epitome of the Metaphysics*, p. 3. Cf. Aristotle, *Physics* II 194b 15.

⁷ On "man" as an equivocal term, see Harry A. Wolfson, "The Amphibolous Terms in Aristotle, Arabic Philosophy and Maimonides," *Harvard Theological Review*, XXXI (1938), pp. 163–171. Wolfson claims that the example of "man" as an illustration of an equivocal term is infrequent in Arabic philosophy (p. 167). Among the few references Wolfson provides is Maimonides' use of "man" as an example of an *amphibolous* term in his *Treatise on Logic*. Maimonides explains in ch. 13 of the *Treatise* that "man" is applied amphibolously to the rational animal, to the man who is dead, and to the image carved in wood. Wolfson does not refer in this article to Maimonides' short chapter in the *Guide of the Perplexed* (I, 14) on the *equivocality* of the word "man" (*adam*), which may be compared to Averroes' striking statement that "man" is predicated equivocally of the one perfect in the theoretical sciences and of the one imperfect in them. For an exposition of this chapter, see Warren Harvey, "Hasdai Crescas's Critique of the Theory of the Acquired Intellect" (unpublished Ph.D. dissertation, Columbia University, 1973), pp., 205–217. Harvey concludes that for Maimonides "man" is applied equivocally to the perfect man and the vulgar man. They "are completely different kinds of beings; the first is immortal intellect, the second doomed and brutish" (p. 217).

the kinds of important virtues, which are justice, temperance, courage, magnanimity, generosity, truth, faith, humility, and the other human virtues. Alexander has already explained in his foreword to this book how the existence of these virtues follows from a knowledge of the theoretical sciences. When the scholar knows the scantiness of his life in relation to this eternal existence and to the continuous motion [of the heavens], and that the relation of his life to eternal time is as that of the point to the line, and in general, as that of the smallest finite thing to the infinite, he will not be overly devoted to life and will necessarily be courageous. Similarly, when he knows that death is from the necessity of hyle, and in particular when he attains human perfection, he will not be afraid of death and, indeed, will fear only that he will be deprived of perfection.⁸ When he attains [human perfection] it is not unlikely that at some time he will see that death is better for him than life, just as Socrates did [in his dealings] with the Athenians⁹ (although it is thought that the methods of instruction for the many and for the few were not clear to Socrates because he tried to fol

⁸ Averroes defines the courageous individual as the one "who always preserves what cogitation orders and commands him" even in "times of fears and anxieties and desires." See *Averroes on Plato's "Republic"*, trans. by Ralph Lerner (Ithaca, New York: Cornell University Press, 1974), p. 55. On the relation of the courageous individual to his attitude toward life and death, see *ibid.*, p. 21.

⁹ See Plato, *Apology* 40c–42a, 37d–38a, and *Phaedo* 62a–68c, 82e–85b. See also Alfarabi, *Philosophy of Plato in Alfarabi's Philosophy of Plato and Aristotle*, trans. by Muhsin Mahdi (revised edition, Ithaca, New York: Cornell University Press, 1969), sec. 30, pp. 63–64; and Averroes, *Commentary of Plato's Republic*, p. 32. In the *Middle Commentary on the Physics*, f. 445a, Averroes gives as an example of the final cause reply to the question, "Why does the man die?" "because it is better for him that he die." An anonymous medieval commentator to the *Middle Commentary* (New York, The Jewish Theological Seminary of America MS No. 2457, f. 14a) explains that "after man acquires the intelligibles and apprehends what he possibly can of them, it is better for him to die and his matter to be corrupted so that only the acquired intellect will remain, for the intelligibles are only known together when they are abstracted from matter."

low the method for the elite with the multitude).¹⁰ Similarly, when he [the scholar] determines that perfection is deprived him, there is no difference [for him] between his death and his life, except that his death is for him more praiseworthy. This is clear since his worry is indeed about the inaccessibility to him of this perfection.

It is further clear that the students of this science must be just and temperate. [They must be] just because when they know the nature of the justice which exists in the substance of the beings, they will want to liken themselves to the same nature and acquire the same form.¹¹ [They must be] temperate because when they 2b know the baseness¹² of desires and that they are not among those things that are necessary for the immortality of man, much less for his perfections, but are things that appertain to them because of the necessity of the nature of hyle, they will cast them far aside and utterly detest them, and they will become temperate, clinging to the divine laws and following the natural nomoi. It is further clear that they will be better and more generous than others; for they despise the acquisition of money and they know the baseness

¹⁰ See Alfarabi, *Philosophy of Plato*, sec. 36, p. 66.

¹¹ What is this "justice which exists in the substance of the beings?" The phrase, "in the substance [or perhaps: essence] of the beings," is a literal translation of the Hebrew *be-'ešem ha-nimša'ot* (Latin: *in substantia rerum*; probable Arabic: *bi-jauhar al-maujūdāt*). The passage becomes intelligible if we recall that Averroes defines justice in his *Commentary on Plato's Republic* (pp. 8–9 and 54) as "every one of the parts doing only what it has to do in the appropriate measure and at the appropriate time." It is in this sense that there is justice in the substance of the beings. Averroes adds in his *Commentary on the Republic* that justice necessarily occurs in the parts of the soul "only when intellect rules over them." The intellect learns to govern justly from its observation of the justice in nature.

¹² The term I translate as "baseness" is "*peḥitut*." This term occurs in medieval Hebrew philosophical texts as a translation of the Arabic term "*radhilah*" ("vice") (see, e.g. Samuel Ibn Tibbon's translation of Maimonides' *Eight Chapters*, chs., 2, 4, and 8). This term occurs five times in the present paragraph in our text. The sixteenth-century Latin translation translates this term as "*imperfectio*" and, in one instance, "*ignobilitas*." The corresponding thirteenth-century Arabic-to-Latin translation is "*vilitas*" or "*indignitas*."

of its existence, and that devotion to it is one of the desires that deviate from nature. Similarly, it is clear that they will be magnanimous, lovers of truth in their speech and in their actions, and [possessors] of the other important traits and human virtues which by nature they will necessarily have.

Now if one were to argue that existence does not testify to the truth of this statement [of Alexander that knowledge of the theoretical sciences leads to virtuous character], and that rather we see that for most of those who glorify themselves in these sciences in these our times the opposite is true,¹³ you should know that they only became this way because of an unnatural disposition which brought them to this inclination.¹⁴ This [unnatural] disposition is clear to whoever has studied and accustomed himself a bit to practical science and investigated into it a little. What we find from Alexander and others should indicate to you that what has happened [to the latter-day scholars] is a matter outside nature. [Our

¹³ See Maimonides, *Guide of the Perplexed*, trans. by Shlomo Pines (Chicago: The University of Chicago Press, 1963), II, 36, p. 371: "For most of the thoughts of those who are outstanding among the men of knowledge are preoccupied with the pleasures of this sense [i.e. the sense of touch, and] are desirous of them." Cf. Alfarabi, *The Attainment of Happiness in Alfarabi's Philosophy of Plato and Aristotle*, secs., 60–61, pp. 48–49. An example of an outstanding philosopher known for his want of temperance in the worldly pleasures is Ibn Bājjah. See, e.g., Ibn Ṭufail's remarks about him in his Introduction to *Hayy ibn Yaqzān*, and Fath Ibn Khāqān's no doubt embellished biographical account in his *Qalā'id al-'iqyān* (Paris, n.d.), pp. 346–353.

¹⁴ "Inclination" in this sentence is a translation of the Hebrew *ha-haskamah* (13th c. Latin: *consensus*; 16th c. Latin: *deliberatio*). This translation of *ha-haskamah* is based on Wolfson's discussion of the term in his *Crescas*, p. 401, n. 8. Averroes' point here is that it is not philosophy that makes these men unvirtuous. Averroes similarly explains in the *Faṣl al-maḡāl* (trans. by George Hourani in *Averroes on the Harmony of Religion and Philosophy* [London: Luzac and Co., 1961], pp. 48–49) that the student of philosophy may stumble in his study owing to a "deficiency in his natural capacity" or his "being dominated by his passions." He even acknowledges that "some of the most vicious people may be thought to have gone astray through their study of the books of philosophy," but this is accidental to philosophy, and philosophy is not to blame. See also Averroes' *Commentary on Plato's Republic*, pp. 77–78.

reading of Alexander] argues for the existence of scholars as men of virtue and distinction, for the men of science were of such a character in his day. When this matter is investigated, you will find nothing but that the perfection which they [the scholars of our day] surrender to because of upbringing and habit is in its essence far from the [true] perfection. And¹⁵ this is not all that has happened to them, but they were brought up on the belief in the baseness of this [true] perfection and the baseness of those who attain it. This happened to them not because of the Law, but because of those who despise and distrust it. It happens to this species of man, when they begin in speculation, that they despise this [true] species of perfection to which they have begun to submit, for they remain with that on which they were brought up, and they have hardly ever submitted to this perfection. They imagine baseness in themselves because men denounce them and consider them uncivilized and among those with whom the least of them should not associate. When they despair of attaining this perfection, they think that what is said about it is not far from being like what is said about the first perfection which they cast aside after having been 3a

¹⁵ The passage that follows is unclear and very difficult. Averroes does not explain what perfections he is talking about and it is not easy to distinguish when he has in mind the true perfection and when the assumed perfection. The thirteenth-century Arabic-to-Latin translation is significantly different in a few places, but is of some help. It reads as follows:

But this is not all that happens to them. In addition, as a result of the custom in which they are reared, they believe that this perfection is quite worthless. This does not happen to them because of the law, but because of those who corrupt [*corruptentibus*] it. Thus, this is what happens to these men when they begin to inquire into this kind of perfection to which they used to submit. Moreover, when they despair of achieving this perfection and when they see all men belittling it and believing that those who yearn for it ought not to be a part of the city, or when they believe that everything which is said of this perfection is similar to what is said of the first perfection in which they are reared and which they cast out — and these are the majority at this time, i.e. among those who engage a bit in speculation — then they completely incline to the appetite and there befalls [read “*accidit*”] them a disposition so unnatural that they ought not to be called a part of the city at all ... All their actions are for themselves.

brought up on it. They are the majority at this time among those who are drawn to logic as an inclination to the desires. Something happens to them which is so much outside of nature that they should not be called a part of the city at all since no political act at all is realized from them and no human love comes from them nor anything of benefit to anyone else. But they consider all their acts important in the fancy of their minds. For this reason, science at this time has become a disgrace to its possessor and a huge blemish on whoever attains it.¹⁶ But we have already strayed too far from our path, so we will now return to it.

[3] As for the rank of this book, it is the book that is called the first of the books that are written by Aristotle on natural science. The meaning of this is [as follows]: When natural things are divided into different natures, these natures differ according to what is particular to each one of them, but they still share in things that are common [to them]. It follows that speculation into this art should be divided first into two parts: one part that inquires into general things that are common to all natural things; the second 3b part that inquires into those things that are particular to each genus of the genera of the different natural things, and this part is divided also into a number of different genera. For this reason the books authored [by Aristotle] on this science are more than one. What happens to them here is like what happens in the art of logic and in other arts. Now the common part in these arts is prior in instruction to the particular parts, [and this is so] for three reasons.¹⁷ One of them is that the common is better known by nature

¹⁶ Cf. Averroes on Plato's "Republic", pp. 77–78: "As for those given over to philosophy without these qualities having been completed in them, ... *not only does one receive no advantage from them in cities*, but they are also the most harmful of things for wisdom ... They have no virtue in and of themselves that would restrain them from these actions [sc. violence and the like]; nor will they speak truly in the tales with which they frighten the citizens while bringing about these things [sc. violence and the like]. *They will be a disgrace to wisdom and a cause of much harm ... as is the case in this time of ours.*"

¹⁷ Averroes gives these same three reasons in the *Middle Commentary on the Physics*, f. 434b. Cf. the *Epitome of the Physics*, pp. 5–6.

to us than the particular. The second is that repetition ought not occur in instruction, that is, mentioning the same common thing many times. The third is that the principles that are employed here are first and particular ones. For example, when one demonstrates that the angles of an absolute triangle are equal to two right angles, he demonstrates this from first principles. However, one who demonstrates this [specifically] for scalene or equilateral triangles does so from principles that are necessarily not first principles.¹⁸ Likewise is the case with one who demonstrates the existence of prime matter in a man or animal or other particular thing. In these cases, the common and general part must precede the particular as the *Prior Analytics* and *On Interpretation* precede the *Posterior Analytics* and the *Topics* and the rest of the [last] five books [of the *Organon*].

[4] As for the parts of this book, Aristotle made it into eight treatises. Each one of these treatises is divided into large sections, and the large sections are divided into small sections. In some instances the small sections are divided into yet smaller sections. At times the first sections will not be divided, and at other times the division process will take place more than three times. All this is according to the nature of what is being discussed. Sometimes some things will call for being divided for the sake of the order of instruction. We will enumerate [all] these divisions at the beginning of each treatise.

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[5] The relation [of this book], i.e. the relation of natural sci-

¹⁸ The general proposition is demonstrated by Euclid in Theorem I, 32 of the *Elements*. Heath points out in his notes to this theorem (*The Thirteen Books of Euclid's Elements*, trans. by Sir Thomas L. Heath [2nd ed., 3 vols.; New York: Dover Publications, 1956], vol. I, p. 317) that it "was discovered in the very early stages of Greek geometry." Euclid does not have special theorems for the proposition for equilateral, isosceles, or scalene triangles. However, some of the ancients are reported to have investigated this theorem of the two right angles in each individual species of triangle (see Heath, pp. 317–320). See further, Aristotle, *Posterior Analytics*, I 74a25–74b4, and Averroes, *Middle Commentary on Aristotle's Posterior Analytics*, ed. by Charles E. Butterworth (Cairo: The American Research Center in Egypt, 1982), pp. 51–57.

ence, to the other theoretical sciences is the relation of the part to the whole. The theoretical sciences are of two kinds: one kind is reckoned for the most part as propaedeutic and it consists of the mathematical sciences; the other kind is reckoned for the perfections for which the propaedeutic sciences exist, and it consists of natural science and divine science. The relation of this book within natural science is the relation of the elements of a thing to the thing. This book includes those things that are the principles and roots, which are common to whatever the student of this science wishes to discuss.

[6] The method of instruction used in this book is of the types of instruction used in this science, and these are the methods of all disciplines, namely, the three types of demonstrations: demonstrations of being, demonstrations of causes, and absolute demonstrations.¹⁹ Now, although demonstrations of being and [demonstrations of] causes are those [types of demonstrations] which are employed for the most part in this art, absolute demonstrations may be used on occasion. This situation is different from that in mathematics where they almost always employ absolute demonstrations.²⁰ The types of instruction [in this science] also include

¹⁹ Demonstrations of being (Arabic: *dalil* or *burhān wujūd*; Hebrew: *re'ayah*; Latin: *signi* or *demonstratio quod est*) are arguments that proceed from the posterior (or what is more known to us) to the prior (or what is more known by nature), from the facts in the world (that is, the effects) to their causes. Demonstrations of causes (Arabic: *burhān asbāb*; Hebrew: *mofet ha-sibbot*; Latin: *demonstratio causae* or *demonstratio propter quid*) proceed from the prior to the posterior, from the causes to their effects. Absolute demonstrations (Arabic: *burhān muṭlaq*; Hebrew: *mofet muḥlat*; Latin: *demonstratio simpliciter*) also proceed from prior to posterior, from causes to effects, but in absolute demonstrations what is prior to us in knowledge is also prior in existence. This threefold division of demonstrations had a marked influence on later Christian thought. See John Herman Randall, Jr., "The Development of Scientific Method in the School of Padua," *Journal of the History of Ideas*, I (1940), esp. pp. 187–197.

²⁰ See also, Averroes, *Middle Commentary on the Physics*, ff. 434a–b, *Epitome of the Physics*, pp. 3–4, and *Long Commentary on the Metaphysics*, ed. by Maurice Bouyges (3 vols. and Introduction; Beirut: Imprimerie Catholique, 1938–1952), vol. I, pp. 50–51.

that which is by definition, that by division, that by enthymeme,²¹ that by induction, and that by example; for the demonstrative arts may use all these five types in the manner mentioned in the *Posterior Analytics*.²² The use of example and induction is in a manner other than the manner in which the art of dialectic and the art of rhetoric use them, i.e. the dialectical induction and the rhetorical example.

[7] As for what the name of this book indicates about it, he 4b
[Aristotle] meant by *Physical Akroasis* [i.e. a *hearing* on nature] a discourse on nature, but because the discourse was heard, he employed [the term] “hearing” in place of “discourse.” The purpose of such metaphor and change, as is explained in the *Rhetoric*, is the pleasure and strangeness which are in the changed words.²³ He [Aristotle] set it apart by this [name], although it [the name] refers to this whole art [of natural science], for this book is the root of

²¹ Mantinus’ Latin translation adds “that by enthymeme” between “that by division” and “that by induction.” The Hebrew manuscripts all speak of *five* types of instruction.

²² See *Posterior Analytics* I, 1–2. The beginning of the *Posterior Analytics* deals with the nature and conditions of demonstration. There is no specific statement in the *Posterior Analytics* of the way in which these five types of instruction may be used in the demonstrative arts.

²³ Scholars today generally agree that the ancient Greek title, *Phusiké akroasis*, of the *Physics* “implies that it was originally a course of lectures” (W.D. Ross, *Aristotle’s Physics* [Oxford: Oxford University Press, 1936], p. 9). Averroes also understands that the *Physics*, like perhaps other of Aristotle’s works, was heard, but he wishes to explain why it was called a “hearing” (Latin: *auditus*) instead of the more usual term “discourse,” that is, a speaking (Latin: *sermo*). His explanation is based on Aristotle’s statements in the *Rhetoric* (III, 2, esp. 1405a 5ff.) of the rhetorical importance of metaphor and change, and that metaphor, above all else, gives the desired pleasure (Greek: *édos*; Latin: *delectatio*; Hebrew: *‘arevut*) and strangeness (Greek: *xenikon*; Latin: *extraneitas*; Hebrew: *zarut*) to speech. Since discourses are indeed heard, the unexpected *akroasis* is a legitimate change for the usual “discourse” or “speech,” and serves the rhetorical function of interesting and delighting the listener.

the art [of natural science] and its principle,²⁴ and the part is called by the name of the whole so that it might be in potentiality all its parts, as is the case with an element which is in potentiality all the things that are generated from it.

[8] The author of this book is Aristotle, the son of Nicomachus, who is well known in science among the Greeks, and who is the author of other books on this art and books on the art of logic and treatises on the divine art. He is the one who originated these three arts, i.e. the art of logic, natural science, and divine science, and it is he who completed them. Indeed he originated them, for what one finds of others on these things should not be posited as a principle of these arts, nor [even] as a part of them. Further, what one finds of others should not even be considered as difficulties in these arts, let alone principles of them. This is clear from what he relates in his books of their arguments on these things. This is also clear from the extant books that are attributed to them. But these are few since men kept away from the books of those who preceded him [Aristotle] after seeing the books of this man. Of the books authored before him, the books that are closest to the path of instruction in these things are those of Plato, although what is in them is very little in comparison to what is in the books of this scholar, and in some sciences it is less than it is in others. As for Aristotle's having completed them [logic, natural science, and divine science], no one who has come after him to this our time — and this is close to fifteen-hundred years later — has been able to add a word worthy of attention to what he said. The existence of [all] this in one man is exceedingly unusual and extremely amazing. When these things exist in some man, it is more fitting that they be attributed to divine existence than to human existence. It is for this reason that the ancients called him "divine."²⁵

²⁴ Physics or natural science refers to the whole art of natural science, treated by Aristotle in books such as the *Physics*, *De Caelo*, *De Generatione et corruptione*, and *Meteorologica*, as well as to the subsience of this art, treated by Aristotle in the *Physics*.

²⁵ This passage is one of the clearest illustrations of Averroes' deification of

Since we have already explained in brief these eight matters which are as introductions to whoever wishes to understand what he [Aristotle] said in this book, we should now begin with our word-for-word commentary on its treatises.

Aristotle. See also his *Middle Commentary on the Meteorologica* (Hebrew trans. ed. by I.M. Levey, "The Middle Commentary of Averroes on Aristotle's *Meteorologica*" [unpublished Ph.D. dissertation, Harvard University, 1947], pp. 117–118): "How minute is the speculation of others in comparison with that of Aristotle! With this divine power which exists in him he brought science into existence and perfected it There is not a thing in his words that needs to be completed." For other explicit examples of Averroes' high estimation of Aristotle, see his *Long Commentary on the Metaphysics*, vol. I, p. 7; *Long Commentary on De Anima*, p. 433; and the references in Renan, *Averroès et l'averroïsme*, p. 60.